Express Mail No.: EL 888418025 US Attorney Docket No.: 2002U001D1.US

CLAIMS:

What is claimed is:

1. A compound having the formula:

$$R_1$$
 R_2
 R_3
 R_4
 R_4
 R_4
 R_5
 R_6

wherein:

 R_1 , R_2 , R_3 and R_4 are each independently selected from among hydrogen and C_1 - C_8 hydrocarbyl groups, wherein none, one or two pairs of substituents selected from the group consisting of R_1 , R_2 , R_3 and R_4 are linked to form saturated or unsaturated rings;

M is an atom selected from among the elements of Groups IV, V and VI;

m is 1, 2, 3 or 4;

the or each X is selected from among halide elements, C_1 - C_8 hydrocarbyl groups, C_1 - C_8 alkoxy groups, C_1 - C_8 carboxylate groups and C_1 - C_8 carbamate groups;

Express Mail No.: EL 888418025 US Attorney Docket No.: 2002U001D1.US

n is 1, 2 or 3;

the or each L is an organic compound containing at least one lone pair of electrons;

Q is a divalent radical of the formula YR_5R_6 , wherein Y is a Group 14 atom, wherein R_5 and R_6 are each independently selected from among hydrogen and C_1 - C_8 hydrocarbyl groups, and wherein R_5 and R_6 are not linked or are linked to form a saturated or unsaturated ring;

E is a Lewis basic group having formula (i) or (ii) below:

(i)
$$-C(R_7)=Z_1R_8$$
,

wherein R_7 and R_8 are each independently selected from among hydrogen and C_1 - C_8 hydrocarbyl groups, and wherein R_7 and R_8 are not linked or are linked to form a saturated or unsaturated ring; and

Z₁ is a nitrogen atom or a phosphorus atom, which bonds to M;

(ii)

wherein:

 Z_2 is an oxygen atom, a sulphur atom or a selenium atom, which bonds to M; and

 $R_9,\,R_{10}$ and R_{11} are each independently selected from among hydrogen

Express Mail No.: EL 888418025 US Attorney Docket No.: 2002U001D1.US

and C_1 - C_8 hydrocarbyl groups, wherein no pair or one pair of substituents selected from R_9 , R_{10} and R_{11} are linked to form a saturated or unsaturated ring.

2. The compound of claim 1, wherein said compound is selected from the group consisting of (i) 5-[(2-pyridyl) methyl)]-1,2,3,4-tetramethylcyclopentadienyl chromium (III) dichloride, (ii) 5-[(2-pyridyl) methyl)]-1,2,3,4-tetramethylcyclopentadienyl vanadium (III) dichloride and (iii) 5-[(2-pyridyl) methyl)]-1,2,3,4-tetramethylcyclopentadienyl titanium (III) dichloride.